1/17

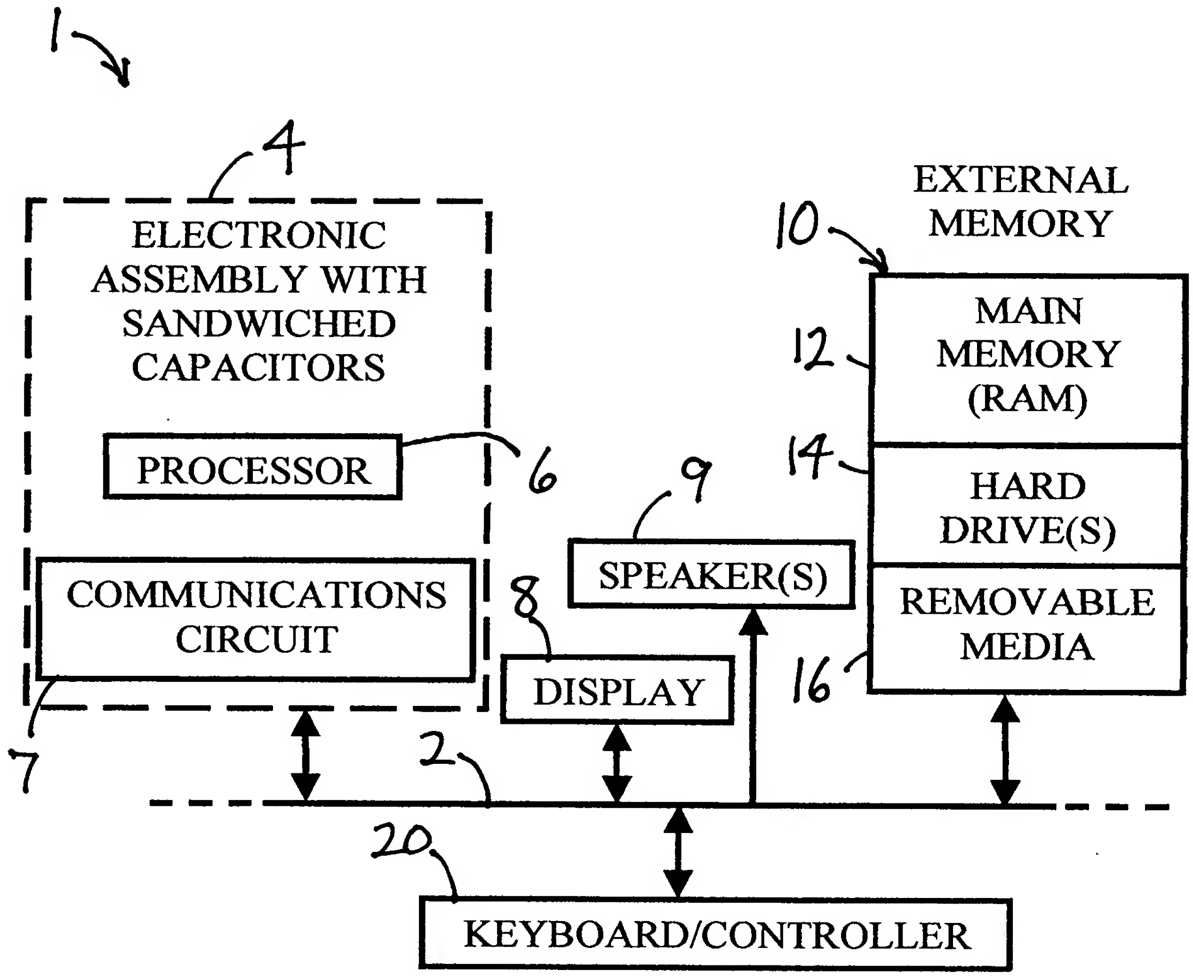

FIG. 1

A17

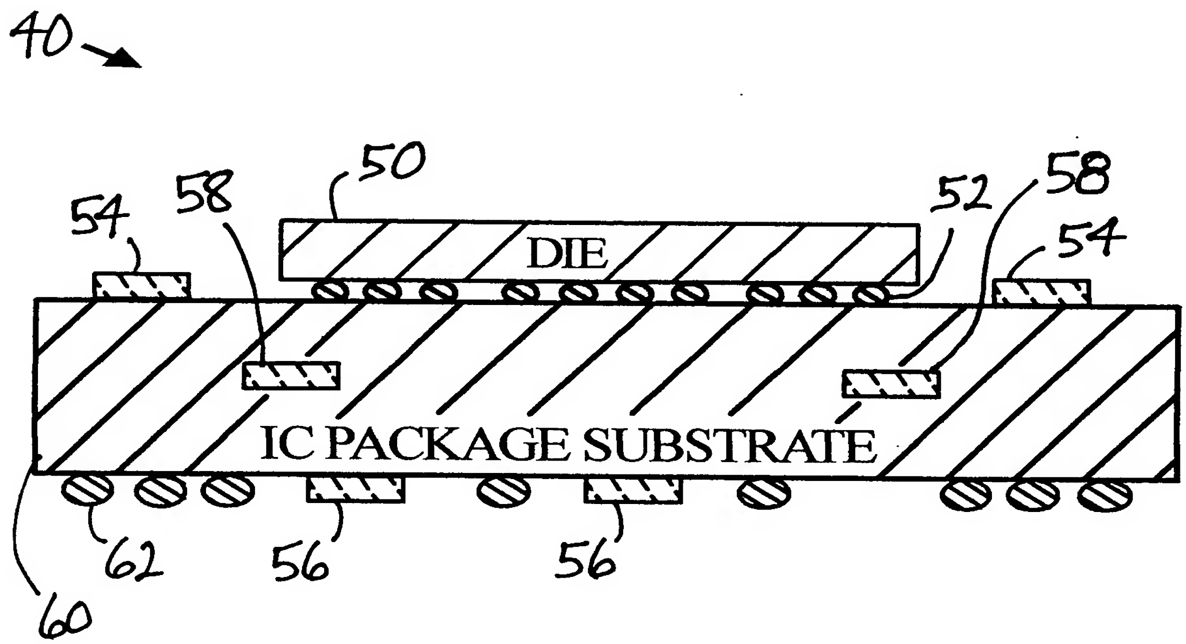

FIG. 2
(PRIOR ART)

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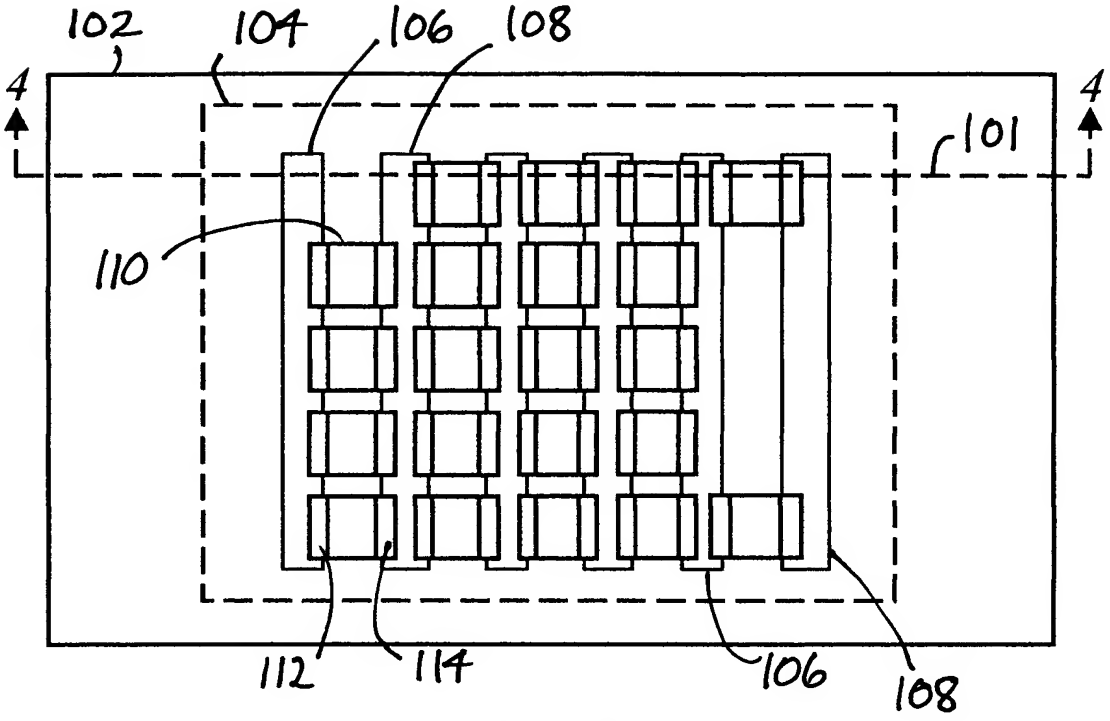

FIG. 3

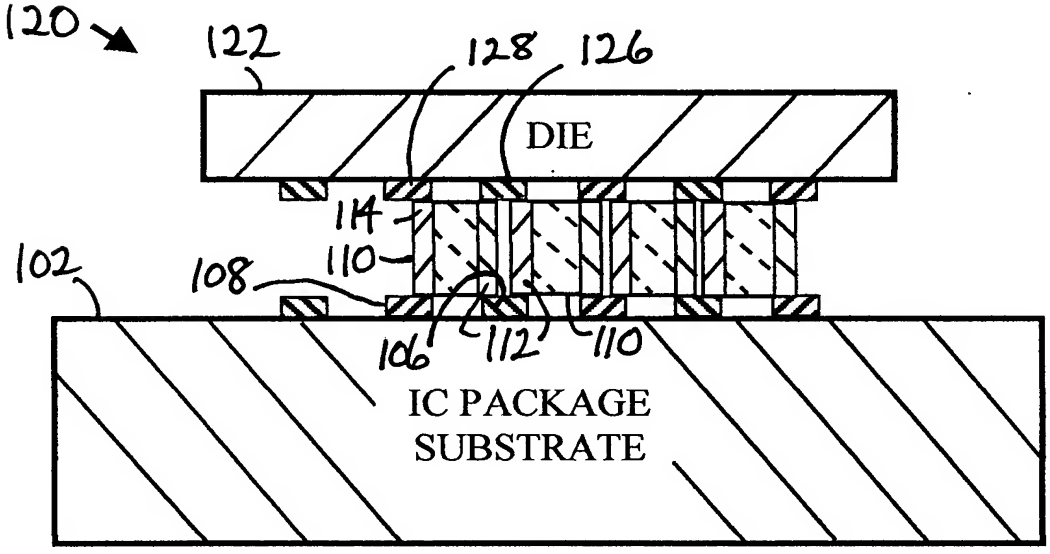

FIG. 4

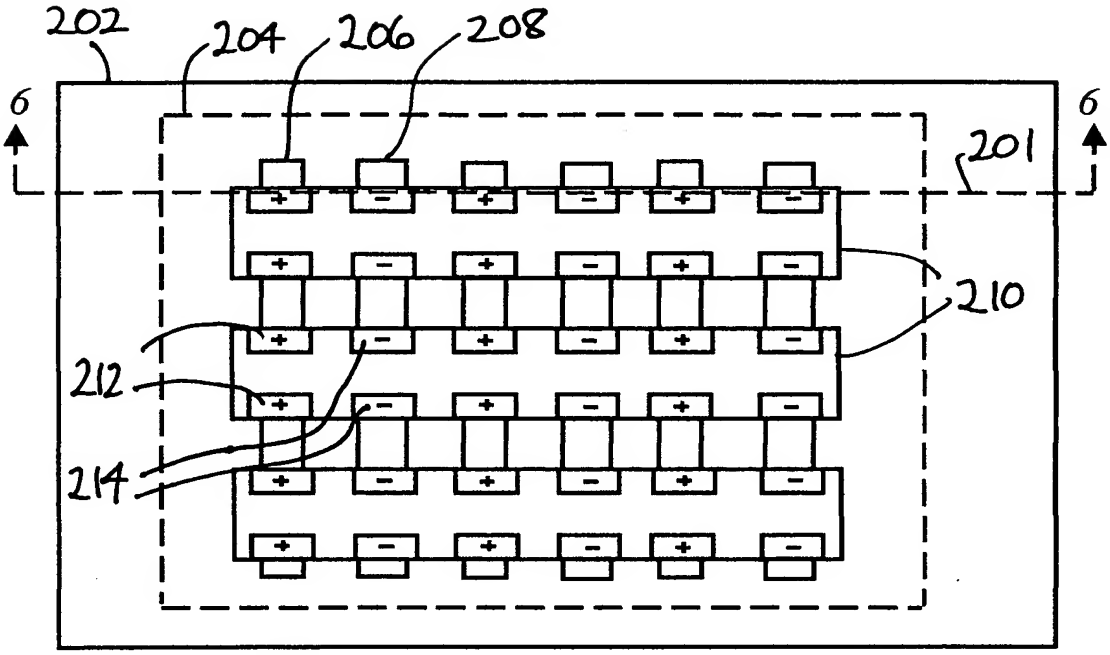
202
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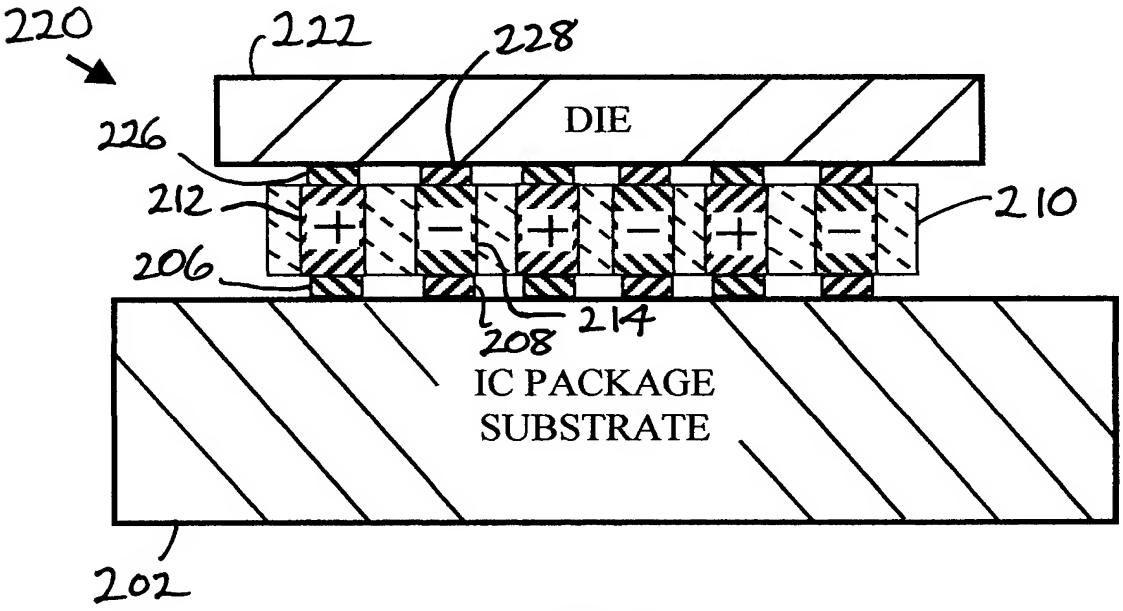
FIG. 5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IC PACKAGE
SUBSTRATE
202

FIG. 6

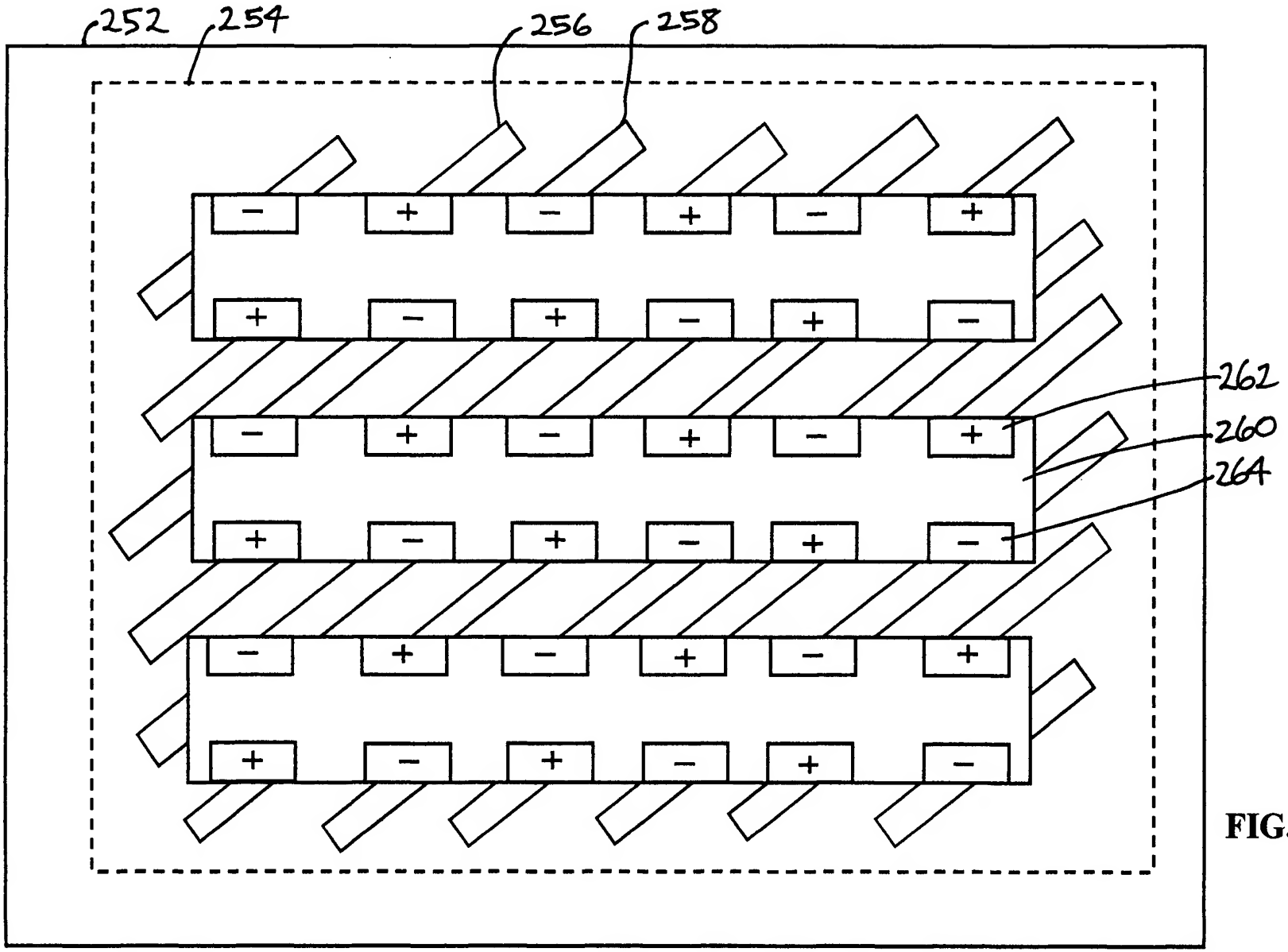

FIG. 7

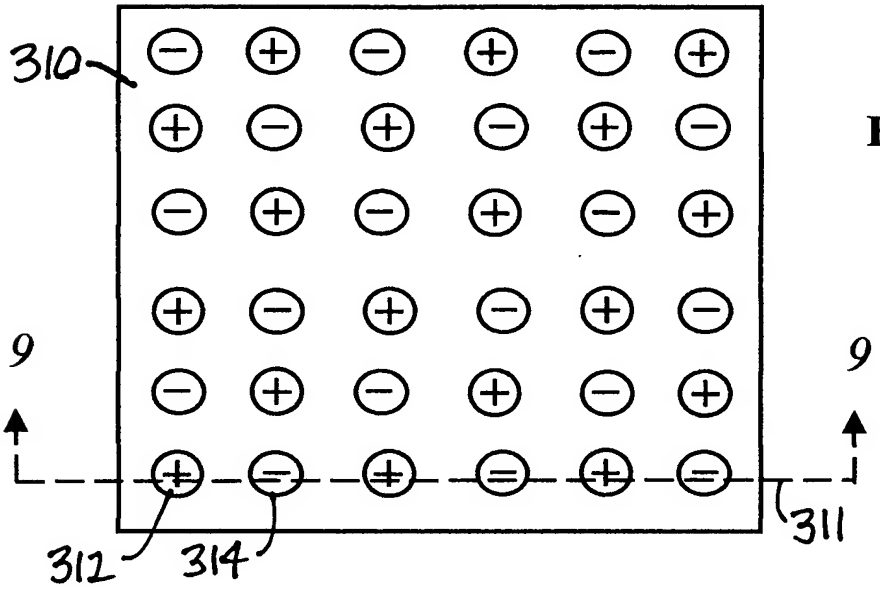

FIG. 8

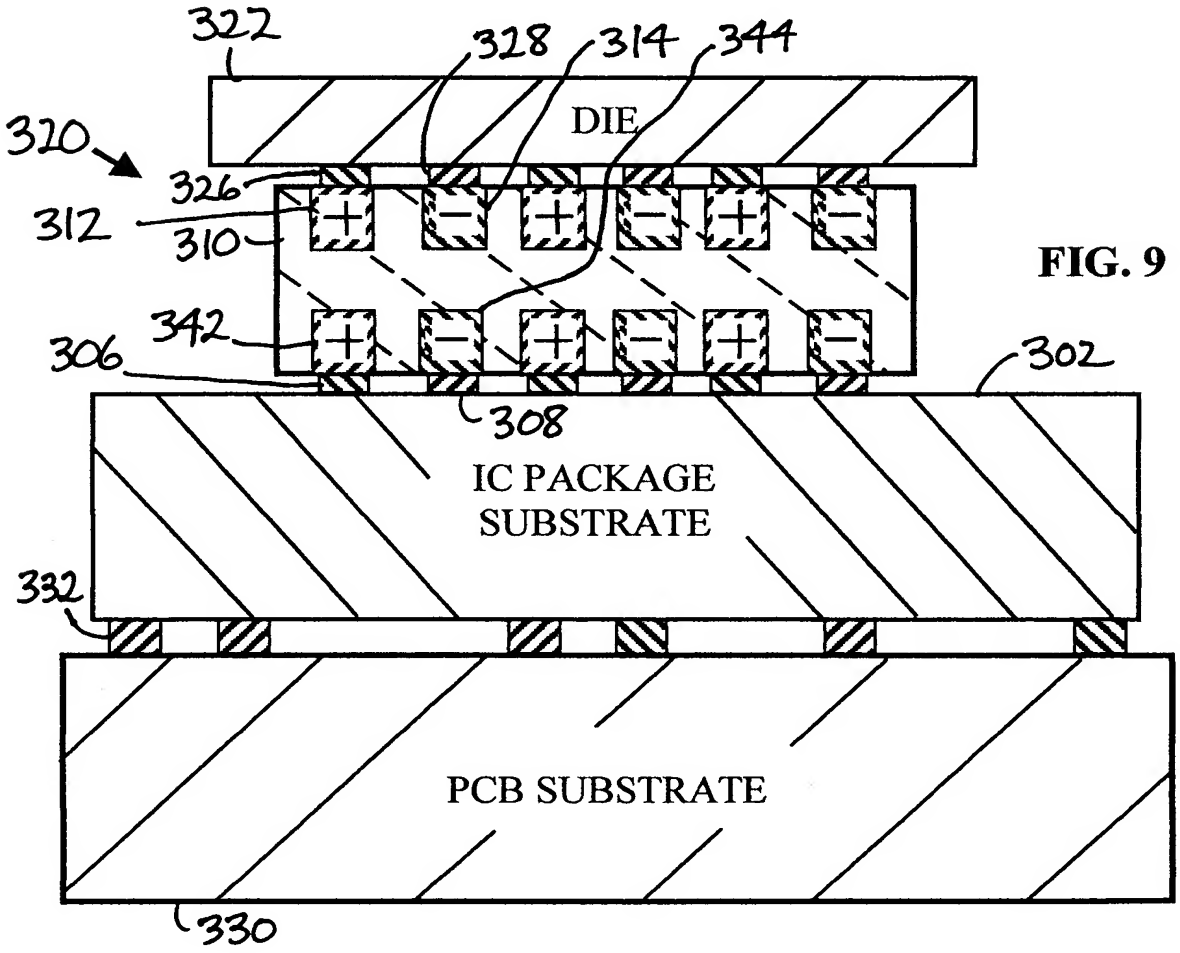

FIG. 9

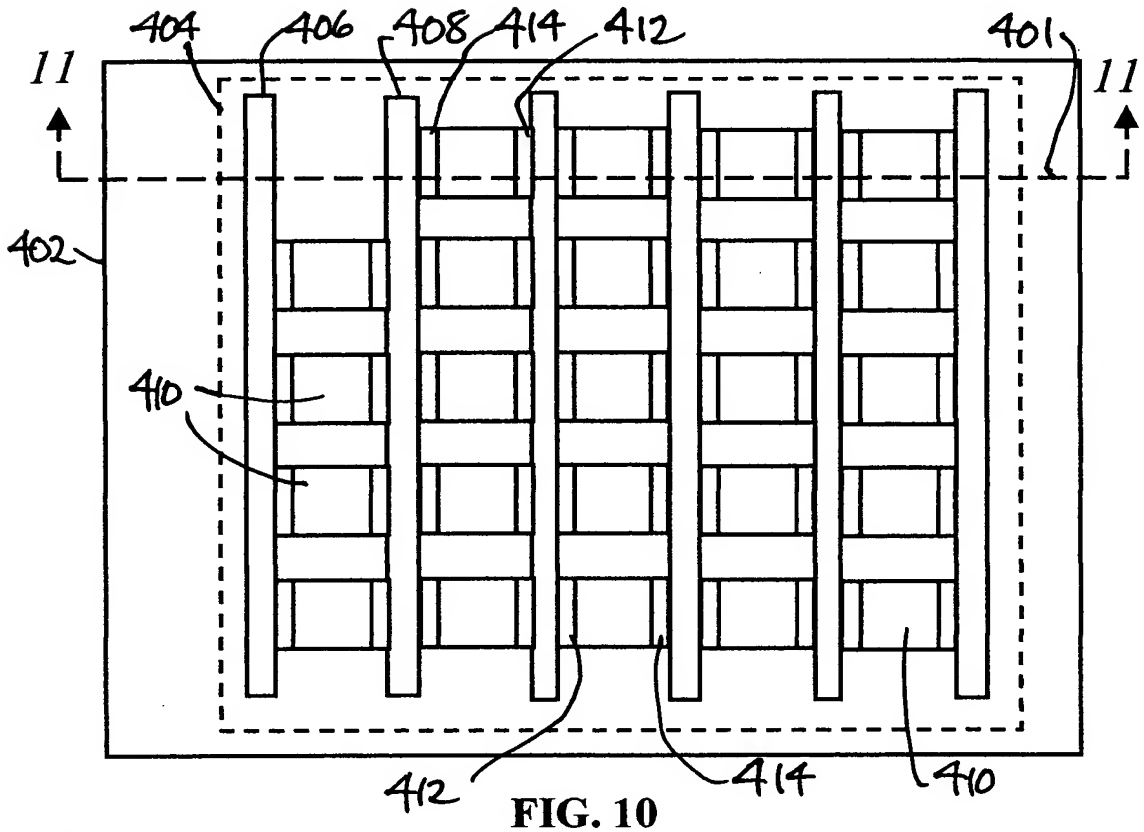
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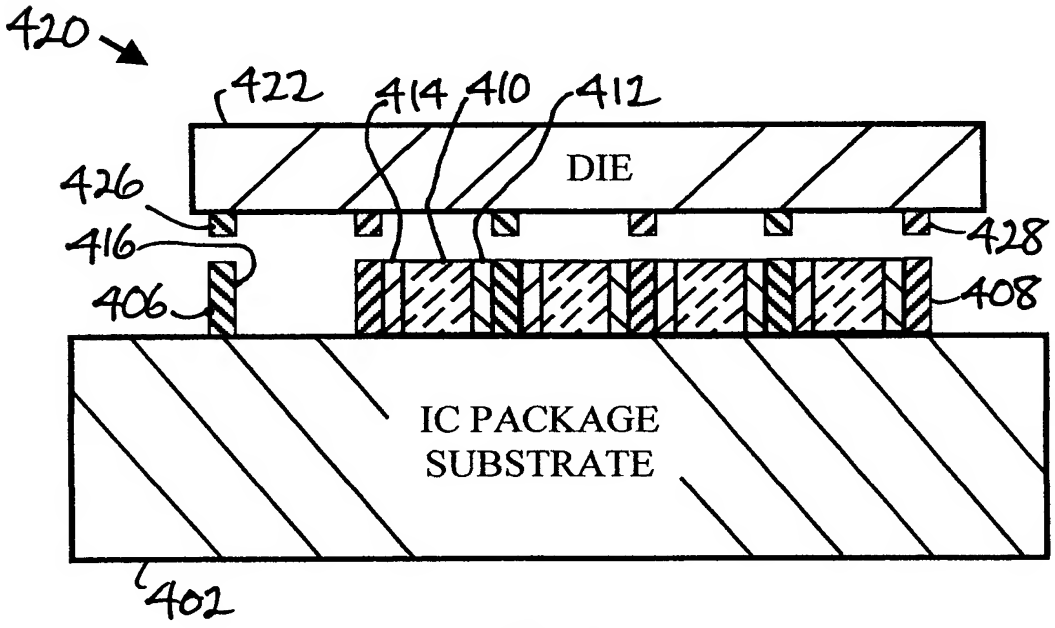
FIG. 10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IC PACKAGE
SUBSTRATE
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FIG. 11

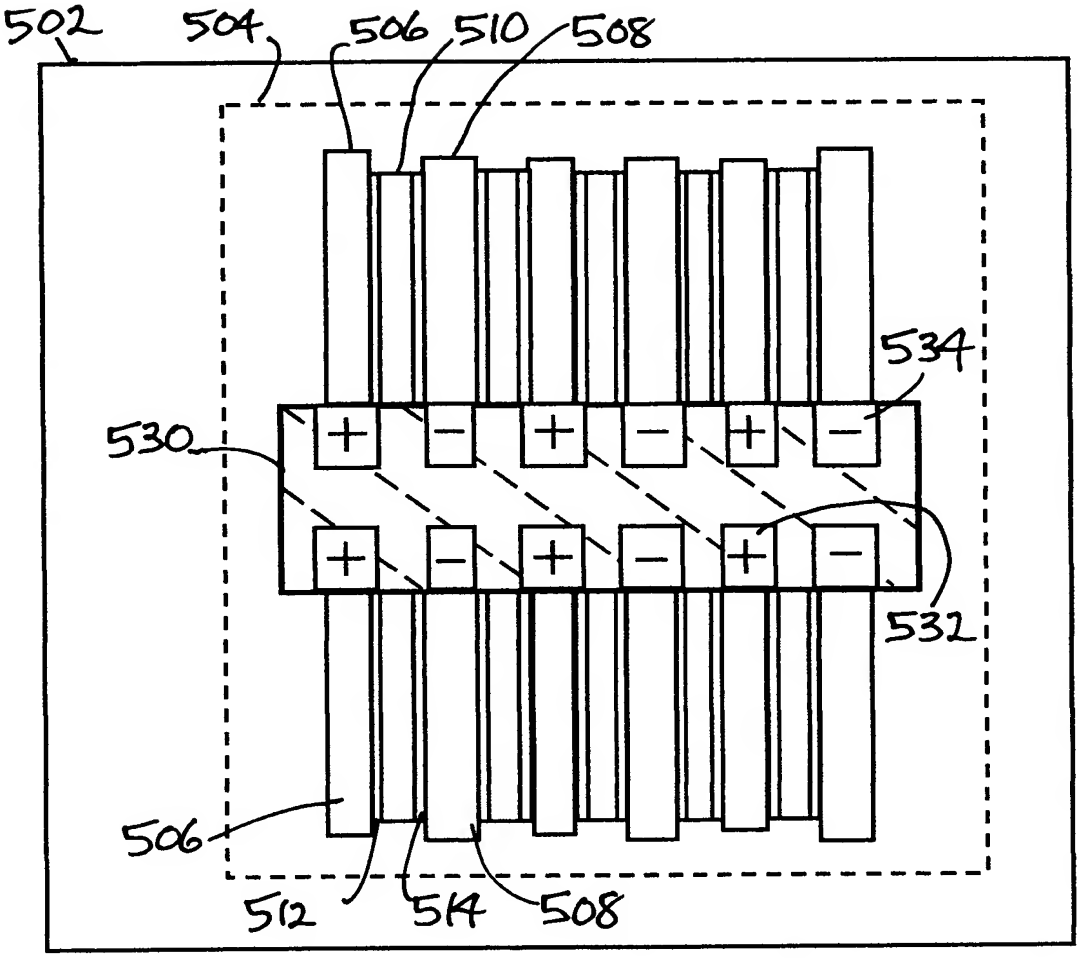

FIG. 12

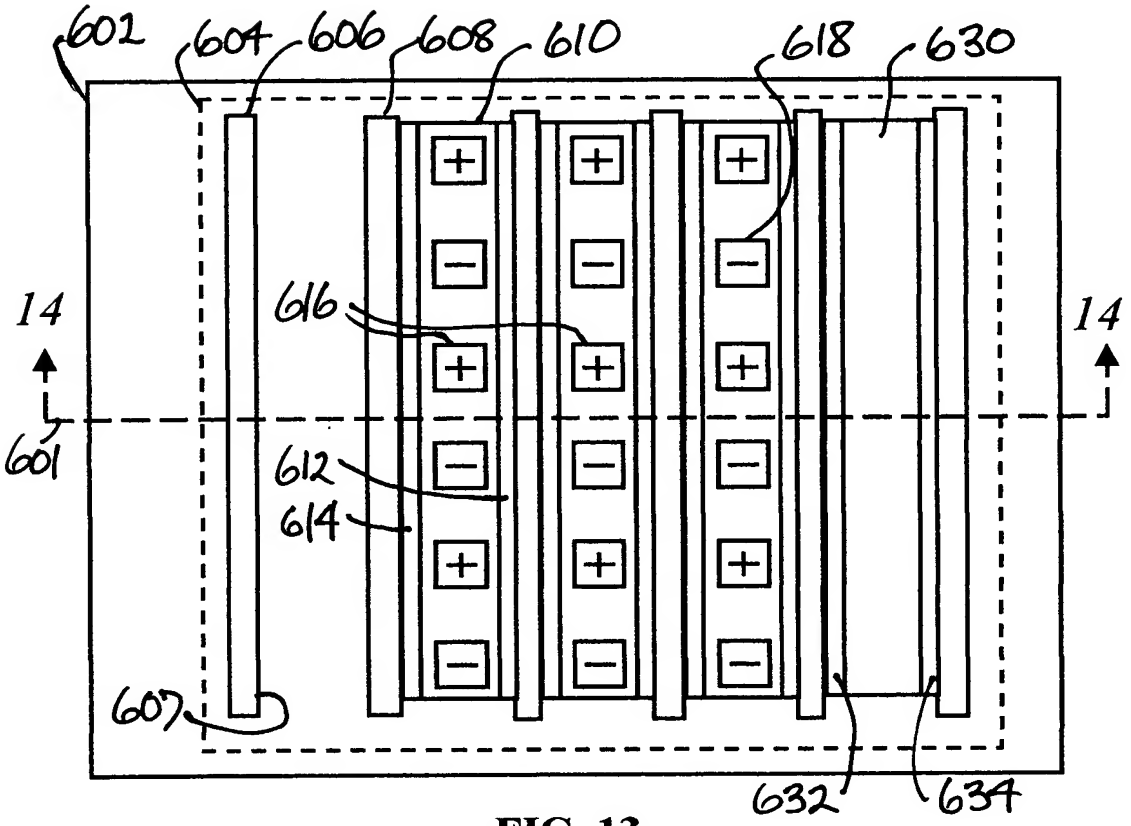

FIG. 13

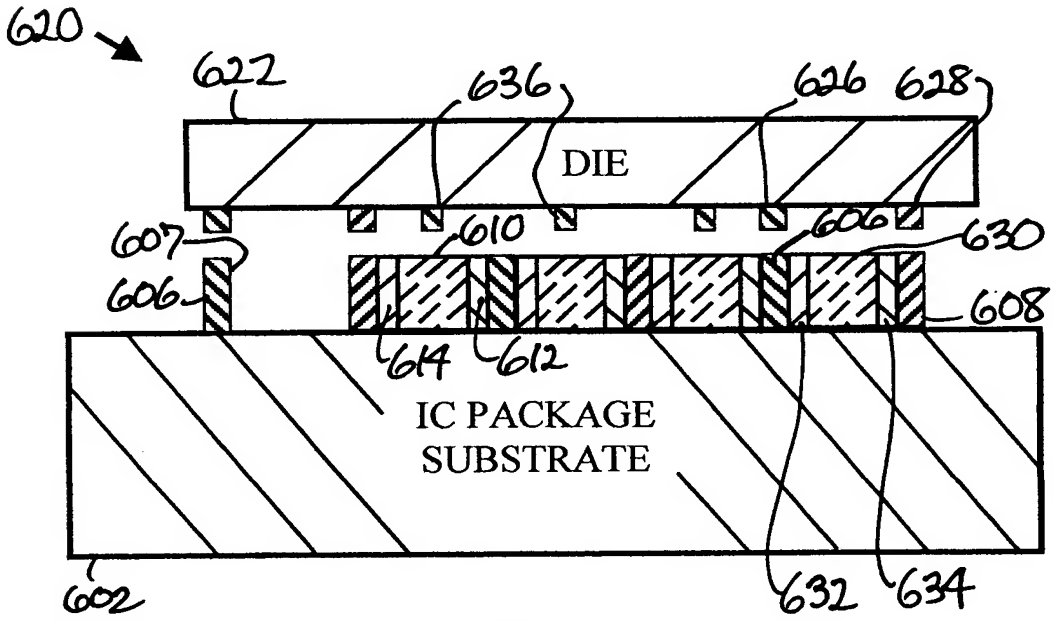

FIG. 14

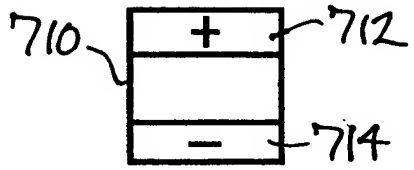

FIG. 15

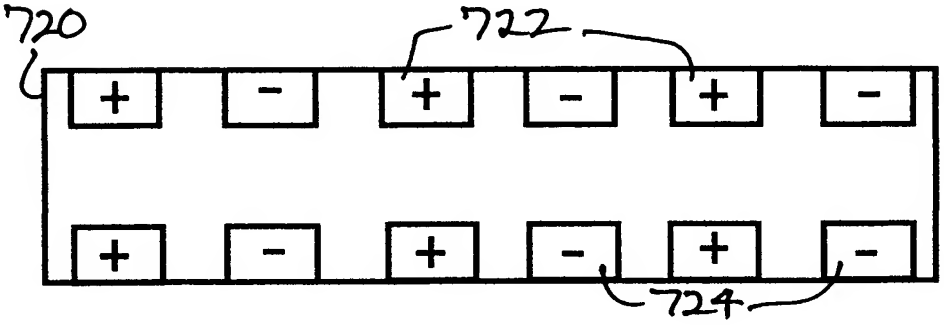

FIG. 16

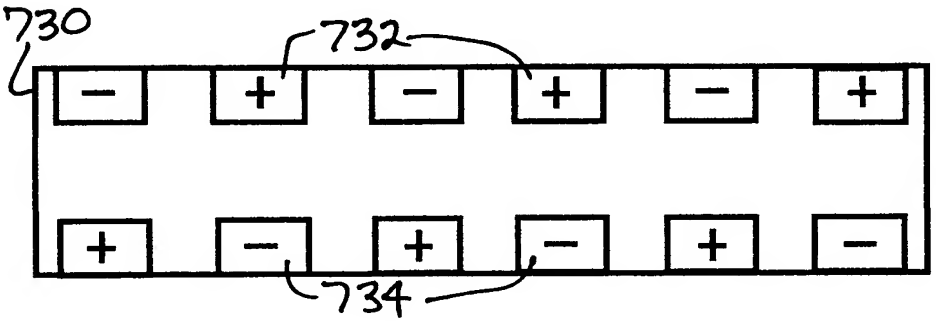

FIG. 17

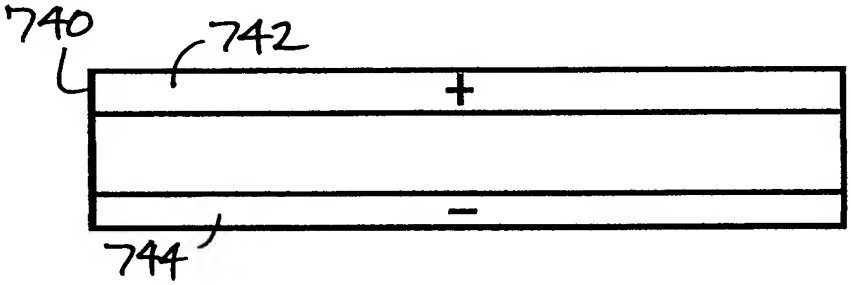

FIG. 18

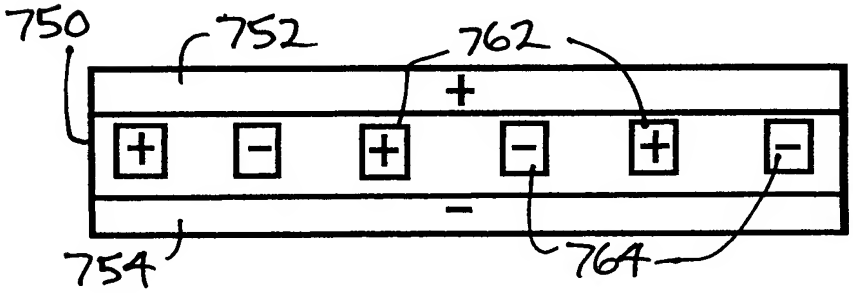

FIG. 19

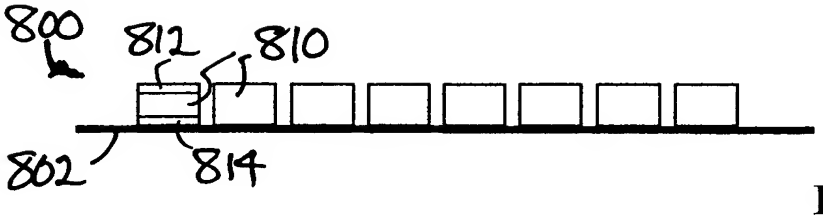

FIG. 20

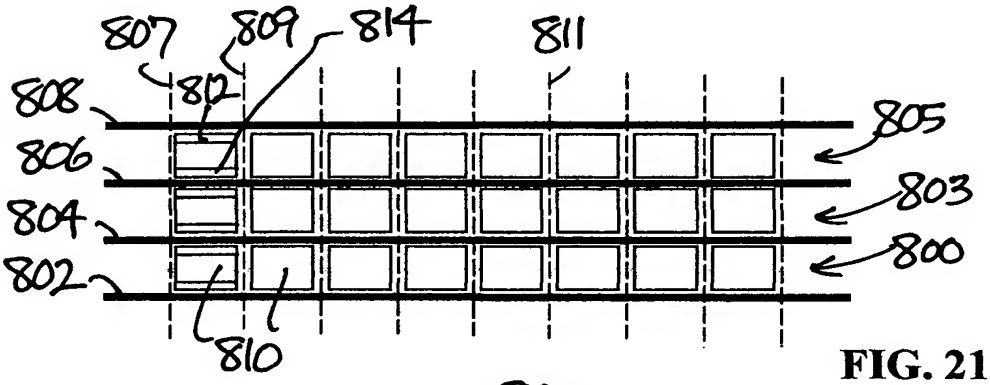

FIG. 21

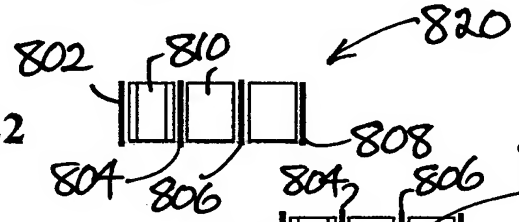

FIG. 22

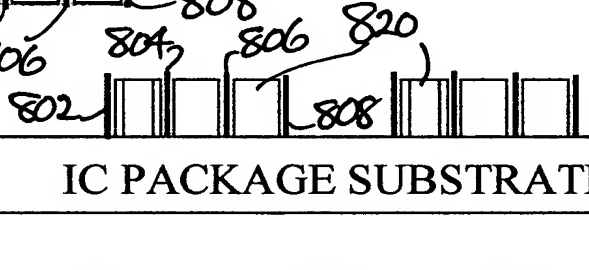

FIG. 23

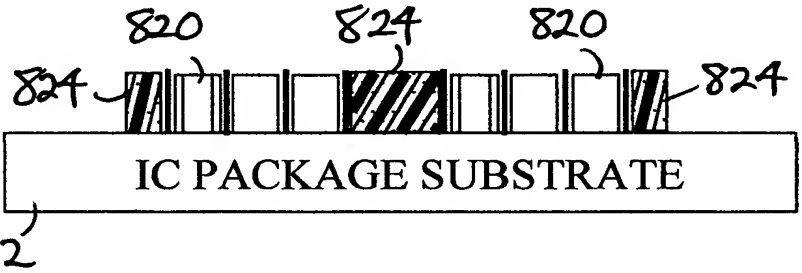

FIG. 24

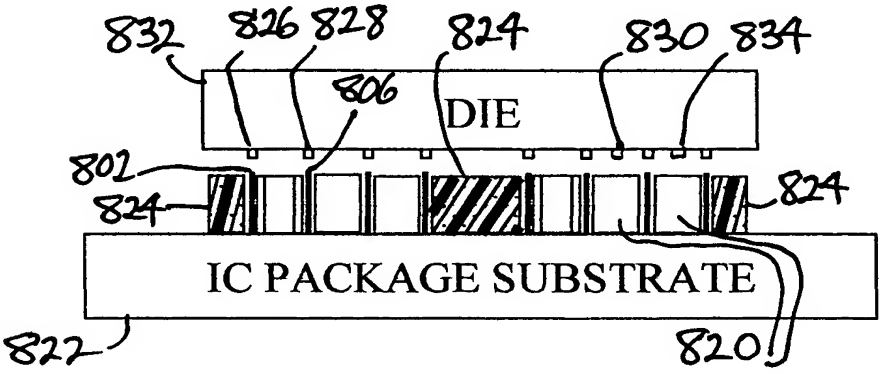

FIG. 25

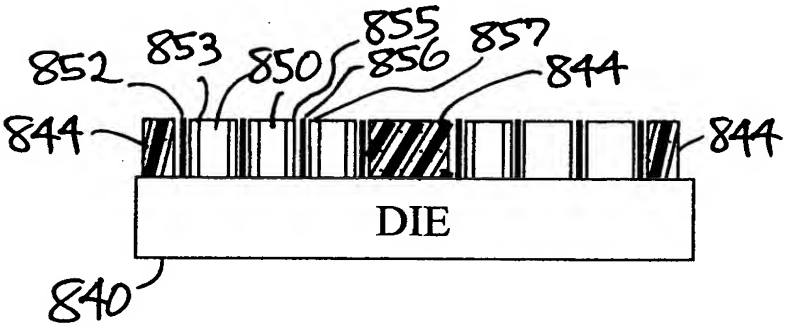

FIG. 26

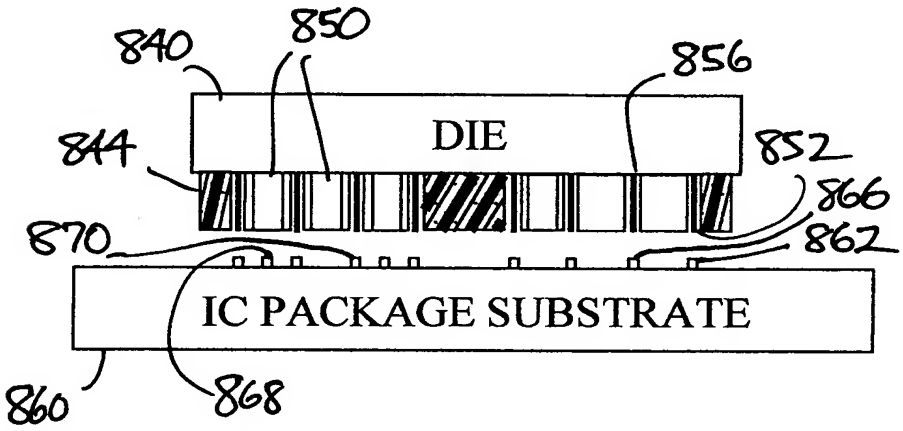

FIG. 27

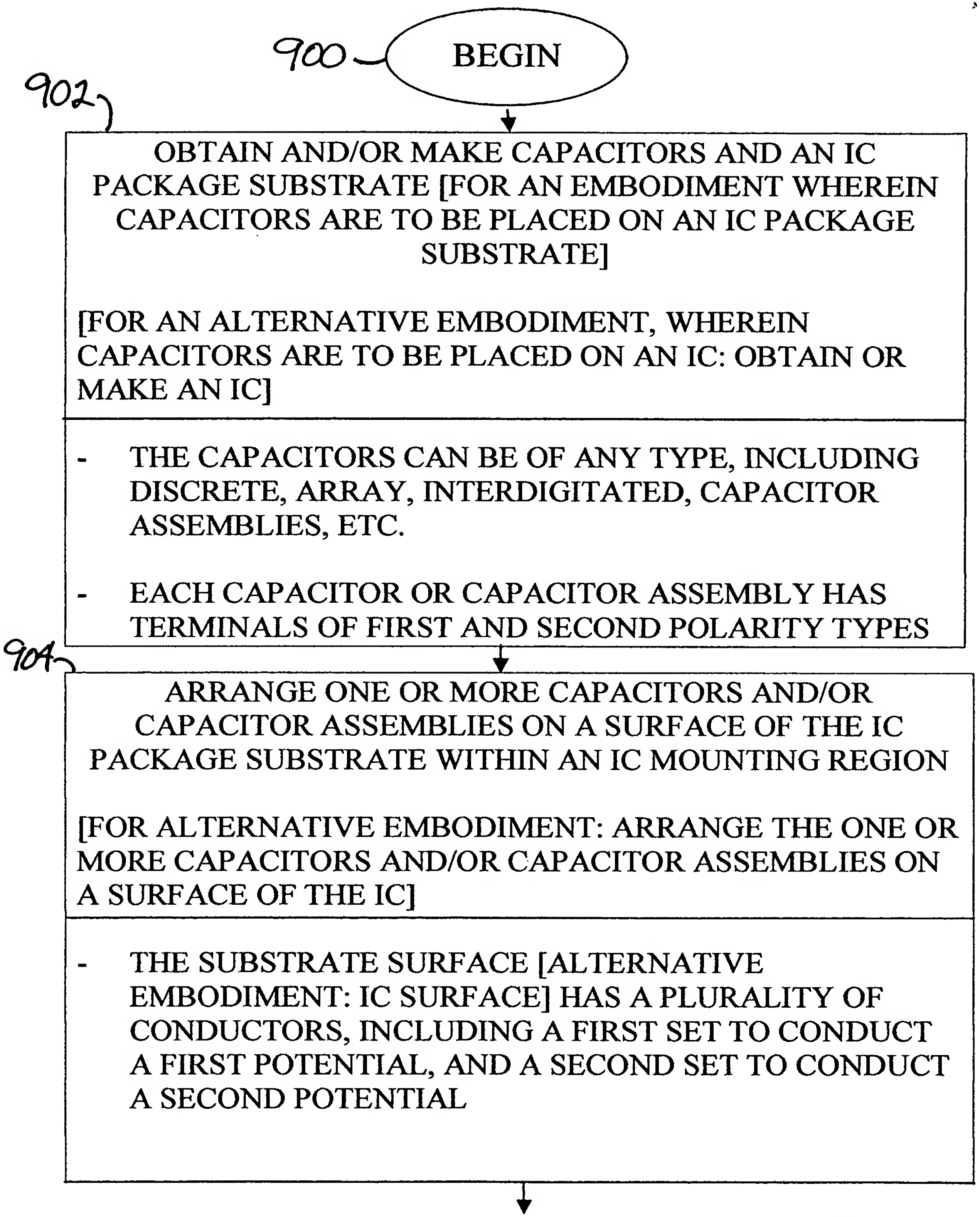
900
BEGIN
902
OBTAIN AND/OR MAKE CAPACITORS AND AN IC PACKAGE SUBSTRATE [FOR AN EMBODIMENT WHEREIN CAPACITORS ARE TO BE PLACED ON AN IC PACKAGE SUBSTRATE]
[FOR AN ALTERNATIVE EMBODIMENT, WHEREIN CAPACITORS ARE TO BE PLACED ON AN IC: OBTAIN OR MAKE AN IC]
- THE CAPACITORS CAN BE OF ANY TYPE, INCLUDING DISCRETE, ARRAY, INTERDIGITATED, CAPACITOR ASSEMBLIES, ETC.
- EACH CAPACITOR OR CAPACITOR ASSEMBLY HAS TERMINALS OF FIRST AND SECOND POLARITY TYPES
904
ARRANGE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES ON A SURFACE OF THE IC PACKAGE SUBSTRATE WITHIN AN IC MOUNTING REGION
[FOR ALTERNATIVE EMBODIMENT: ARRANGE THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES ON A SURFACE OF THE IC]
- THE SUBSTRATE SURFACE [ALTERNATIVE EMBODIMENT: IC SURFACE] HAS A PLURALITY OF CONDUCTORS, INCLUDING A FIRST SET TO CONDUCT A FIRST POTENTIAL, AND A SECOND SET TO CONDUCT A SECOND POTENTIAL

FIG. 28A

904, cont.

- THE CONDUCTORS CAN BE OF ANY SUITABLE TYPE, SUCH AS SURFACE TRACES, PADS, OR BARS
- THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES ARE ARRANGED SUCH THAT CERTAIN TERMINALS OF THE FIRST POLARITY TYPE CONTACT THE FIRST SET OF CONDUCTORS, AND CERTAIN TERMINALS OF THE SECOND POLARITY TYPE CONTACT THE SECOND SET OF CONDUCTORS
- IF THE IC PACKAGE SUBSTRATE SURFACE [ALTERNATIVE EMBODIMENT: IC SURFACE] HAS CONDUCTIVE BARS, ONE OR MORE OF THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES IS POSITIONED BETWEEN ADJACENT ONES OF THE BARS

↓

906

SECURE THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES TO THE SUBSTRATE SURFACE [ALTERNATIVE EMBODIMENT: TO THE IC SURFACE] USING A SUITABLE MECHANISM

- E.G., APPLY A FILL OR ADHESIVE MATERIAL TO THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES, AND/OR TO OPENINGS BETWEEN THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES; USE SPACERS OR CLAMPS; ETC.

↓

908

POSITION AND MOUNT AN IC ON THE MOUNTING REGION, E.G. USING SOLDER REFLOW

- ELECTRICALLY COUPLE THE IC TERMINALS TO CORRESPONDING TERMINALS OF THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES, AND OPTIONALLY TO CONDUCTORS ON THE SUBSTRATE

↓

FIG. 28B

908, cont.

- IF THE IC PACKAGE SUBSTRATE SURFACE HAS CONDUCTIVE BARS, ONE OR MORE OF THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES CAN BE ELECTRICALLY COUPLED TO ONE OR MORE BARS, TO THE IC, OR TO ONE OR MORE BARS AND TO THE IC

[FOR ALTERNATIVE EMBODIMENT: POSITION AND MOUNT THE IC ON A MOUNTING REGION OF AN IC PACKAGE SUBSTRATE, E.G. USING SOLDER REFLOW]

- [ALTERNATIVE EMBODIMENT: ELECTRICALLY COUPLE THE IC PACKAGE SUBSTRATE TERMINALS TO CORRESPONDING TERMINALS OF THE ONE OR MORE CAPACITORS AND/OR CAPACITOR ASSEMBLIES, AND OPTIONALLY TO CONDUCTORS ON THE IC]

- [ALTERNATIVE EMBODIMENT: IF THE IC SURFACE HAS CONDUCTIVE BARS, ONE OR MORE OF THE CAPACITORS AND/OR CAPACITOR ASSEMBLIES CAN BE ELECTRICALLY COUPLED TO ONE OR MORE BARS, TO THE IC PACKAGE SUBSTRATE, OR TO ONE OR MORE BARS AND TO THE IC PACKAGE SUBSTRATE]

910

END

FIG. 28C

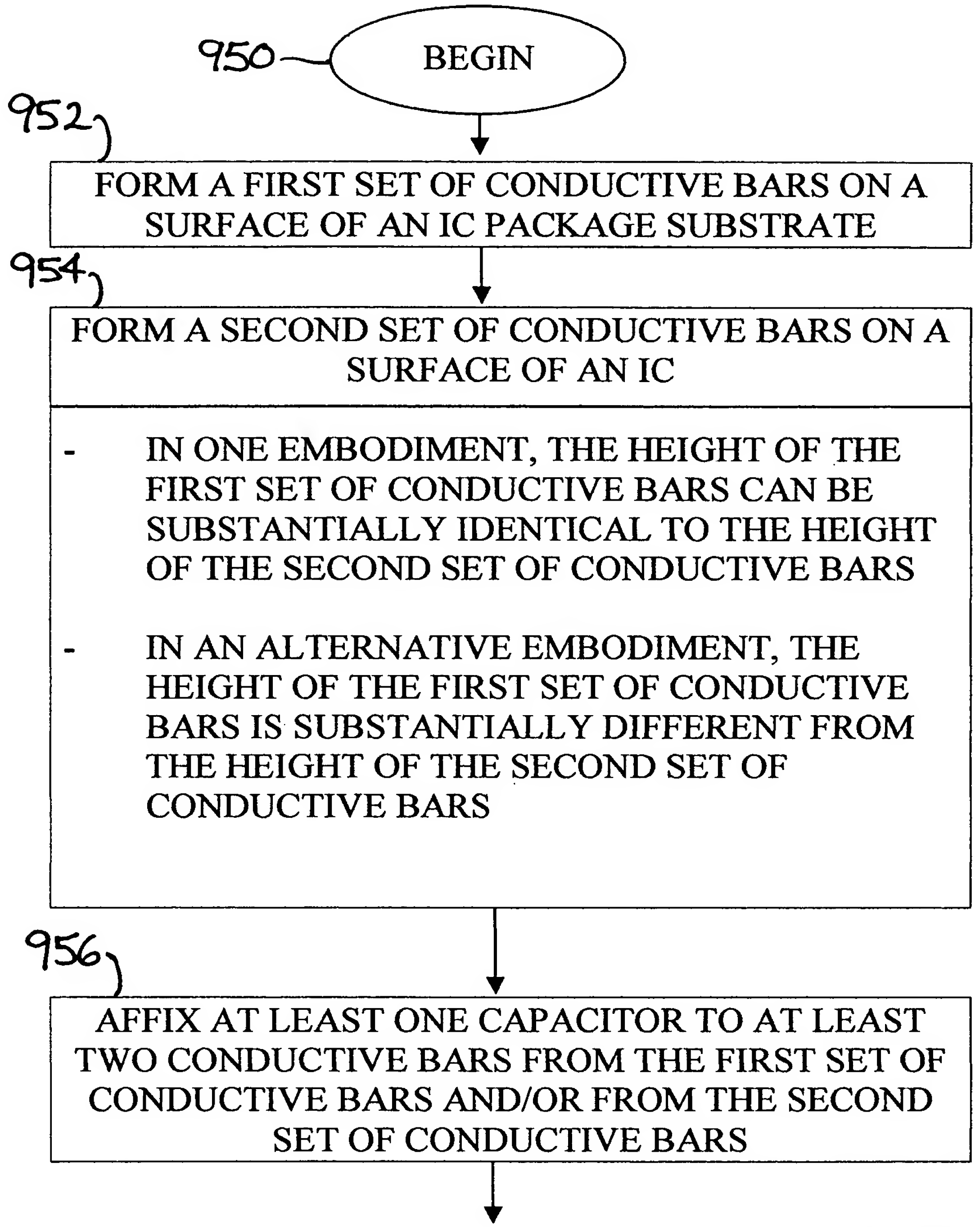
950
BEGIN
952
FORM A FIRST SET OF CONDUCTIVE BARS ON A SURFACE OF AN IC PACKAGE SUBSTRATE
954
FORM A SECOND SET OF CONDUCTIVE BARS ON A SURFACE OF AN IC
- IN ONE EMBODIMENT, THE HEIGHT OF THE FIRST SET OF CONDUCTIVE BARS CAN BE SUBSTANTIALLY IDENTICAL TO THE HEIGHT OF THE SECOND SET OF CONDUCTIVE BARS
- IN AN ALTERNATIVE EMBODIMENT, THE HEIGHT OF THE FIRST SET OF CONDUCTIVE BARS IS SUBSTANTIALLY DIFFERENT FROM THE HEIGHT OF THE SECOND SET OF CONDUCTIVE BARS
956
AFFIX AT LEAST ONE CAPACITOR TO AT LEAST TWO CONDUCTIVE BARS FROM THE FIRST SET OF CONDUCTIVE BARS AND/OR FROM THE SECOND SET OF CONDUCTIVE BARS

FIG. 29A

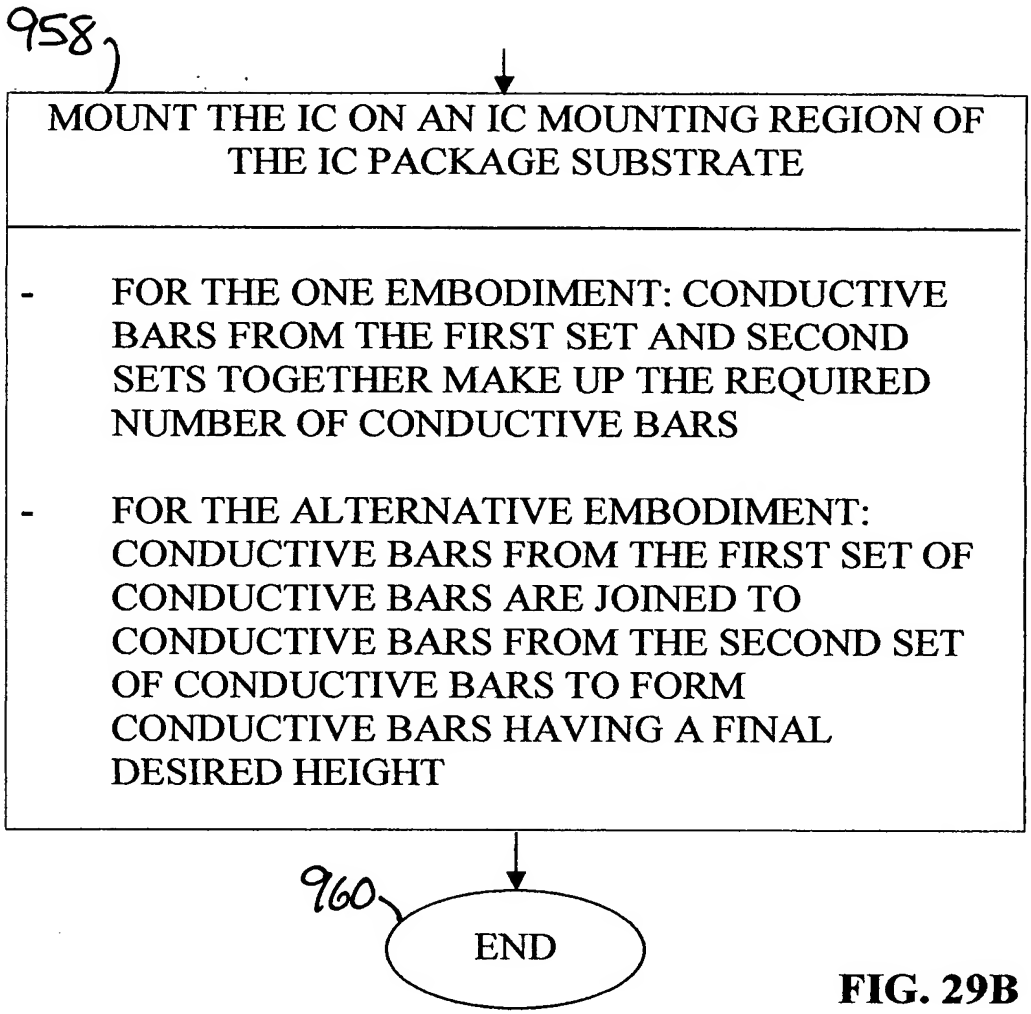

FIG. 29B